# DOCKET FILE COPY ORIGINAL

### ORIGINAL

# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

uE.	CE	IVED
JUN	<i>3 0</i>	1999

In the Matter of Revision of the Commission's Rules	)	OFFICE OF THE SECRETARY
To Ensure Compatibility with	)	CC Docket No. 94-102
Enhanced 911 Emergency	)	
Calling Systems	)	
To: Chief, Wireless Telecommunicati	ions Bureau	

#### QUARTERLY UPDATE TO REQUEST FOR WAIVER OF SECTION 20.18

Missouri RSA No. 7 Limited Partnership ("Mid-Missouri"), by its attorneys, hereby files a quarterly update to its request for rule waiver ("Waiver") of Section 20.18 of the Commission's Rules, pursuant to the FCC's Order released on November 13, 1998.¹ On December 4, 1998, Mid-Missouri filed for a waiver of Section 20.18 the Commission's rules regarding the transmission of 911 calls made from TTY devices using digital wireless systems. Mid-Missouri requested the Waiver until compliant equipment becomes commercially available. The Commission granted Mid-Missouri a temporary waiver of Section 20.18, which went into effect on January 1, 1999.² In order to maintain its Waiver, Mid-Missouri must file quarterly updates to show what advances have been made in the development of commercially available equipment. In support thereof, the following is respectfully shown:

<sup>2</sup>In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Order, rel. Dec. 31, 1998 ("Order II").

No. of Copies rec'd 0774 List ABCDE

<sup>&</sup>lt;sup>1</sup>In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Order, rel. Nov. 13, 1998 ("Order I").

Order I sets forth specific questions that should be answered in support of waivers of Section

20.18. Mid-Missouri submits that these questions relate to the specifications of the equipment that

is being developed to provide TTY-compatible service, and as such are beyond the scope of

information which Mid-Missouri alone can provide. Therefore, such questions are more

appropriately addressed by Mid-Missouri's equipment vendor because the equipment vendor, and

not Mid-Missouri, is directly involved in developing compliant equipment. To form the basis of

extending its Waiver, as evidenced by Exhibit A, Mid-Missouri requested that its equipment vendor

provide responses to all information set forth in Order I.

As evidenced by Exhibit A, Nortel continues to work on developing equipment that is

compliant with the requirements in Section 20.18 of the Commission's rules. Until compliance can

be achieved, Mid-Missouri will request updated information from its equipment vendor regarding

progress on development of compliant equipment and will submit additional quarterly updates to

extend this waiver request as needed. Mid-Missouri reaffirms that as soon as compliant equipment

is commercially available from its equipment vendor, Mid-Missouri intends to satisfy its obligations

under Section 20.18 of the Commission's rules.

Respectfully submitted,

MISSOURI RSA NO. 7 LIMITED PARTNERSHIP

esa C. Belandi

Dated: June 30, 1999

Michael K. Kurtis

Susan Belardi

Its Attorneys

Kurtis & Associates, P.C. 2000 M Street, N.W.

Suite 600

Washington, D.C. 20036

(202) 328-4500

-2-

Dated: June 30, 1999

JUN 24 '99 10:54 FR NORTEL

972 684 3630 IU 616606201136



M. 66/102

2231 Lakeside Richardson Texas 75082

June 24, 1999

v.norteinetworks.com

Kathie Zentgraf General Manager Mid-Missouri Cellular 1500 South Limit Sedalia, Missouri 65301

Dear Kathie.

Nortel continues to work on the resolution of the 911 TTY issues. We have reviewed our previously submitted responses, and made some minor adjustments for clarification purposes.

The changes are as follows:

The first sentence of response A was changed to read "Nortel will design equipment to be fully compliant with the requirements in Section 20.18 of the FCC rules. At this time, the specifics and time table are not available."

The second sentence was inserted in response D. It reads "Most TTY devices deployed in the past 10 years are not designed to connect to a wireless handset. The TTY connection is not infrastructure equipment."

The following words were added to response 5, "and Nortel networks does not manufacture wireless handsets."

In response 12, the word "much" was changed to "most".

Please do not hesitate to call me if you have any further questions.

Best Regards,

Janet B. Dolan

Senior Sales Engineer

Jonet B. Odlan

(972) 684-2691

How the world shares ideas.



How the world shares ideas.

## Nortel Networks Response to June 24, 1999 911 TTY Questions

- A. Nortel will design equipment to be fully compliant with the requirements in Section 20.18 of the FCC rules. At this time, the specifics and time table are not available. Once the industry identifies the solution and its implementation specifics, we will identify to Mid-Missouri any upgrades that may be required to support 911 for TTY, along with the timetable for compliance.
- B. Nortel is evaluating both datapath and audiopath solutions that have been identified in either the TTY Forum meetings or submitted to TIA sub-committees.
- C. Nortel will make this capability available, as soon as the various manufacturers have tested and identified which solution best fits. TTY users in the real world environment, where they would tend to make the calls. Until the solution is identified, we do not have a timetable available.
- D. Nortel equipment will support TTY devices that have been designed to have a proper connection with the handset. Most TTY devices deployed in the past 10 years are not designed to connect to a wireless handset. The TTY connection is not infrastructure equipment. Although both digital and anolog will be supported for TTY devices, analog facilities are currently the preferred method, in order to avoid inducing additional message errors.



How the world shares ideas.

## Nortel Networks Response to June 24, 1999 911 TTY Concerns

- 1. The initial test results suggest that TDMA error rates should fall in the 3-5% range in ideal conditions, and that AMPs error rates should fall in the <1% range in ideal conditions. Nortel notes that the TTY user will need to have a reliable connection between the TTY device and the wireless handset to make essentially error free calls. Nortel is not a manufacturer of either handsets or TTY devices.
- 2. Norted believes that for the TTY caller to be able to monitor all attributes of the call, this may require changes by TTY manufacturers, handset manufacturers and infrastructure manufacturers. This is under evaluation.
- 3. Nortel is aware of the visual indication concern. This may require changes by all manufacturers, as noted in 2 above.
- 4. Volume control is a feature in the handset, or the TTY device. Nortel does not manufacture either of these devices.
- 5. A tactile (vibrating) ring indication is a feature of the handset, and Nortel does not manufacture wireless handsets.
- 6. Nortel and other manufacturers are evaluating the feasibility of solutions to send TTY tones independent of receiving mode.
- 7. Nortel is not aware of any testing that has shown that a landline party's TTY could achieve the desired error rate.
- 8. Nortel and other manufacturers are looking at which solution will work best for TTY users. Nortel is aware of these concerns.
- 9. Nortel is sensitive to consider Voice Carry Over (VCO) and Hearing Carry Over (HCO) in the various solutions that are currently being evaluated.
- 10. We are mindful of consumer's desire not to reduce the throughput rate in the various solutions that are being evaluated.



How the world shares ideas.

#### Nortel Networks Response to June 24, 1999 911 TTY Concerns (Continued)

- 11. Nortel is aware that consumers will desire ANI and ALI on the 911 call. However, depending on the solution, TTY devices may need to be designed or retrofitted for the feature.
- 12. Nortel is mindful that consumers will desire to use the dominant embedded base of TTYs. However, we are not aware of any solution identified to date that would not require modification of most of the TTYs to support 911 calls in a typical mobile environment.
- 13. Nortel and other manufacturers are evaluating the various solution types using drive testing. Although AMPs is used as the benchmark, the initial digital results fall short of the analog benchmark.